

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claim 1 has been amended, responsive to the rejection under 35 U.S.C. § 112, to clarify that the through hole of the second magnet is one in which the vinculum “is able to be” inserted. This rejection is therefore believed to be moot. Additionally, allowable Claim 8 has been rewritten in independent form.

New Claim 9 corresponds to Claim 1 except that it recites the securement of the vinculum and the moving member in “means plus function” format.

Claims 1-4 and 6 were rejected under 35 U.S.C. § 103 as being obvious over U.S. patent 5,690,656 (Cope et al) in view of U.S. patent 5,601,557 (Hayhurst) and U.S. patent 5,595,562 (Grier). This rejection is respectfully traversed.

According to the feature of the invention set forth in Claim 1, an organ anastomosing apparatus includes first and second magnets, for example the magnets 2 and 6 illustrated in the non-limiting embodiment. The first magnet is formed in a disk shape and is provided with a radial through hole for a guide wire (e.g., the radial through hole 2d). A vinculum is secured at a center portion of one end surface of the first magnet in an axial direction thereof. Thus, for example, the vinculum 5 may be secured at a center position of the end surface having, e.g., the crossbar 2d, and extends in an axial direction of the first magnet. The second magnet (e.g., 6) is also provided with a through hole (e.g., 6a) in which the vinculum is able to be inserted. It is therefore possible to anastomose an organ using the apparatus in the manner set forth in the specification.

According to the Office Action, Cope et al discloses all of the features of Claim 1 except a moving member and a vinculum, each of which is supposedly taught by the secondary references. However, not only are there further differences between Cope et al and the claimed invention, but the claims define over any obvious combination of this prior art.

Cope et al discloses a method and apparatus for operating abnormal visceral anastomoses using first and second magnets 90a and 90b which are placed in first and second viscera, respectively. The magnets include jackets 94a and 94b having end portions forming sharp edges to pinch the walls 110 and 112 of the viscera to thereby self-center the magnets and promote the anastomosis (column 5, lines 34-42). A first embodiment (Figures 9 and 10) includes an axial hole 96 through the magnetic core in order to allow the magnet to be used in conjunction with a guide wire. In a second embodiment (Figures 11-12), “instead of an axial hole 96, the magnet assembly 100 includes a transverse hole 98” to allow the magnet to be used in conjunction with a guide wire (column 5, lines 5-6). There is no description of a vinculum secured at a center position of one end surface of the first magnet in an axial direction thereof.

As the Office Action has recognized, the magnet according to the embodiment of Figures 11 and 12 includes only a radial through hole 98. The Office Action also makes reference to the axial through hole 96 of the embodiment of Figures 9 and 10, evidently to support the obviousness of the modification of Figures 11 and 12 to include a vinculum secured at a center portion at one end surface of the first magnet “in an axial direction thereof.” However, if it is the intent of the Office Action to rely on the axial through hole 96 of Figures 9 and 10 to support the obviousness of the modification of Figures 11 and 12 to include a vinculum secured in an axial direction of the first magnet, this intention is misplaced since such a modification would be inconsistent with the teaching of Cope et al: the axial and radial through holes are alternative embodiments which are not used together. Thus Cope et al not only fails to teach the use of vinculum but also fails to teach magnets having a radial through hole in combination with structure in the magnets whereby the vinculum could be secured at a center position of an end surface of a magnet in the axial direction thereof.

Beyond this, as the Examiner has recognized, Cope et al also fails to teach a moving member, and a vinculum secured at a center portion of one end surface of a magnet in an axial direction thereof. The Office Action has therefore relied upon Hayhurst, particularly the suture 140 (Fig. 20), to suggest the use of such a vinculum in Cope et al. However it is respectfully submitted that this reliance is also misplaced.

Hayhurst is directed to bone anchors. Figure 20 thereof discloses a bone anchor 130 including a base 132 through which is threaded a suture 140. It is respectfully submitted, however, that one skilled in the art would not rely upon this teaching to provide Cope et al with a vinculum secured at a center portion of one end surface of a magnet in an axial direction thereof, for several reasons.

First, as already explained, Cope et al lacks structure for securing a vinculum in an axial direction of the magnet, together with a radial through hole, since the radial through hole 98 and the axial through hole 96 are alternatives provided in different embodiments.

Additionally, one skilled in the art would not have been motivated by the teaching of a suture threaded through a bone anchor to provide a vinculum secured at a center position of one end surface of a magnet in an organ anastomosing apparatus, since bone anchors and organ anastomosing apparatuses are not in analogous arts. Prior art disclosures cannot be combined where they are not in the same or analogous arts, i.e., where they do not present the same or similar problems to the would-be inventor. M.P.E.P. § 2111.01. Organ anastomosing apparatuses use magnets to pinch tissue and thereby enlarge openings. The magnets bear against the tissue by magnetic attraction, and the problems facing the would-be inventor include orienting and positioning the magnets against the tissue such that they are magnetically attracted. Bone anchors, on the other hand, are fixed elements surgically implanted in recesses drilled into bone. The sutures, e.g., 140, provide a function of permitting attachment to these fixed anchors. Since the magnets of Cope et al are not

anchored parts and since the anchor of Hayhurst is not a magnet and does not promote anastomosis, there is no motivation for one skilled in the art to have even looked to the bone sutures of Hayhurst for a suggestion to modify Cope et al.

Grier was cited to teach a moving member for use in Cope et al. However, Grier provides no teaching for the claimed vinculum secured at a center position at one end surface of the first magnet in an axial direction thereof, and so could provide no teaching for overcoming the shortcomings of Cope et al and Hayhurst with respect to this limitation. Claims 1-7 therefore define over any combination of the above references.

New Claim 9 corresponds to Claim 1 except that it recites the securement of the vinculum and the moving member in “means plus function” format. The above remarks therefore also apply to this claim.

Dependent Claim 5 further recites that the first magnet is chamfered at corner portions of end surfaces in the axial direction thereof. This is shown, for example, at 2a in Figure 1. Claim 5 was rejected under 35 U.S.C. § 103 as being obvious over the above references, further in view of published U.S. patent application 2002/0072758 (Reo et al) which mentions rounded corners at paragraph [0040]. However, it is noted that this portion of Reo et al in fact describes that a “flat surface and sharp corners are desirable [in a magnet] to maximize magnetic force and sealing between a component and tissue.” Rounded corners are taught as being a *flaw* resulting from mechanical finishing. For this reason alone, one skilled in the art would not have been motivated by Reo et al to have provided such undesirable chamfers at the corner portions of the magnets in Cope et al.

Additionally, the magnets of Cope et al have ridges at their edges -- the opposite of chamfering. These ridges are taught as being desirable to provide a self-alignment function so that no surgical placement of the magnets is required. The ridges are also taught as being beneficial to provide cutting which accelerates decompression and necrosis of the tissue walls

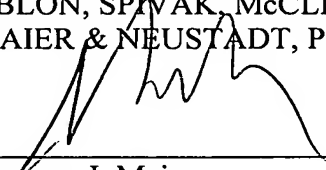
between the magnets (column 5, lines 34-42). Since it would not have been obvious to have modified Cope et al in a manner which eliminates these beneficial functions and results, one skilled in the art would not have been motivated to have replaced the raised edges in Cope et al with chamfers. (See M.P.E.P. § 2143.01; "The proposed modification cannot render the prior art unsatisfactory for its intended purpose"). For these reasons as well, dependent Claim 5 also defines over the prior art.

Claim 7 further recites that one of the first and second magnets is provided with a marker made of an X-ray non-transmitting material. Claim 7 was rejected under 35 U.S.C. § 103 as being obvious over the above references and further in view of Cole et al which was cited to teach the use of a marker. However, whatever teaching Cole et al may have in this respect, it provide no teaching for overcoming the shortcomings of the references with respect to Claim 1, and so the claims define over any combination of the above references.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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